



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/348,506      | 07/07/1999  | BOZIDAR FEREK-PETRIC | P-8027              | 5334             |

27581 7590 06/06/2005

MEDTRONIC, INC.  
710 MEDTRONIC PARKWAY NE  
MS-LC340  
MINNEAPOLIS, MN 55432-5604

EXAMINER

PRIETO, BEATRIZ

ART UNIT PAPER NUMBER

2142

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/348,506

Applicant(s)

FEREK-PETRIC, BOZIDAR

Examiner

Prieto Beatriz

Art Unit

2142

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 36-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 36-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

30

***Detailed Action***

1. This communication is in response to Amendment filed 02/24/04, claims 36-41 have been examined and remain pending.
2. Acknowledge is made to declaration filed pursuant to 37 C.F.R. 1.121 to nullify the applied art, which is seems to be applicable solely to the Bardy (US 6,312,378) having a filing data of June 3, 1999.
3. Objection to claims 39-40 has been obviate by amendment thereto, thus hereby withdrawn.

***Claim Rejection under 35 U.S.C. 103***

4. Quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.
5. Claims 36-39 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Snell U.S. Patent No. 5,720,771 in view of Comer, D., Internetworking with TCP/IP, Vol. I, Principles, Protocols and Architecture, 3erd Edition, 1995, pages.

Regarding claim 36, Snell teaches a the system/method of Figs. 1-4;

an implantable device (16) within a patient's body (col 4/lines 10-15), said implantable device capable of bi-directional communication with a "programmer" device (10) (receive-transmit, col 7/lines 16-25, 43-56);

the programmer (10) in telemetry communication with said implantable device (col 4/lines 38-46, detect: col 7/lines 43-44, detect: col 8/lines 20-24, e.g. physiological conditions) in the patient;

transmit and receiving data between the programmer and a "server" computer or host (12) (col 8/lines 61-66, col 2/lines 43-45, 54-59, col 9/lines 45-55) via a wireless communication medium (communication network) (col 9/lines 45-55) capable of bi-directional communication with said remote computer system (col 5/lines 27-36, send-receive, col 5/lines 2-27);

although Snell teaches where the communication using a communication protocol, it is silent with respect to a specific protocol, namely to the acknowledgment required in under TCP/IP communication and the lack of acknowledgement require under UDP/IP;

Comer teaches a reliable stream delivery protocol (TCP) part of the TCP/IP suite (section 13.1 to 13.2) to transfer a stream of bits of data between two application programs executing on their respective sending or source machine and the recipient or destination machine, for sending a data stream from a source machine to a destination machine (section 13.3), this reliable protocol uses a acknowledgment technique, which requires the recipient to communicate across the network with the source, sending back an acknowledgment as it receives data from the source (see Figs. 13.1-13.2 & 13.4)(section 13.4-13.5);

the TCP/IP suite, the User Datagram Protocol (UDP) provides the similar capabilities as TCP in that it enables application programs running on a host computer to send stream bits (datagrams) to another application, each datagrams also including a destination/source address, making it possible for the UDP protocol software at the destination to deliver the message to intended recipient and for the recipient to send a reply, UDP uses IP to transport stream data from one host machine to another providing unreliable, connection datagram delivery, it does not use acknowledgment to make sure the data stream arrived (section 12.3);

It would have been obvious to one ordinary skilled in the art at the time the invention was made given the suggestions of Snell for transmitting data from the programmer to a remote server, office and/or database over the Internet, that the principals under which TCP/IP protocol suite communication operate will be implemented to establish communication between two or more computer. Thereby, any host or program executing on a machine with sending and receiving capabilities communicating under a reliable transport stream as TCP performs claimed functionalities, i.e. send a data stream and/or sending a receipt in response to received data stream in the case of TCP and transmitting and receiving data streams without sending receipts as in the case of UDP. The teachings of Comer do not modify the system or structure of Snell, they simply identify the communication principles suggested in Snell's system.

Regarding claim 37, TCP/IP contains the sender and destination IP address (Comer: see Fig. 13.7, source/destination port addresses on page 204).

Regarding claim 38, UDP/IP contains the recipients IP address (Comer: see Fig. 12.1 source and destination port address on page 181).

Regarding claim 39, wherein the data stream sent from the server is a signal retrieved by the programmer from the implanted device from the implantable device (Snell: col 4/lines 10-15), heart or cardiac related to the patients condition "real-time ECG waveform" (Snell: col 1/lines 13-21).

Regarding claim 41, the signal measured by the implanted device include electrocardiogram cardio signal "real-time ECG waveform" (col 1/lines 59-65), these signal, the collected cardiovascular measures set includes individual cardiovascular measures which each relate to patient information recorded by the cardiac monitoring device for an individual patient (Snell: col 1/lines 46-54).

7. Claim 40 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Snell in view of Comer in further view of Moore et. al. (US 4,750,495).

Regarding claim 40, although Snell does not explicitly teach where the ECG, particularly, comprise QRS signals:

Moore teaches an electro cardio gram comprising QRS signal (col 3/lines 14-28).

It would have been obvious at the time the invention was made given the suggestion of Snell for retrieving electrocardiogram data from the pacemaker or a broad class of implantable device including from implanatable devices such as cardiovascular monitors to sense electrical activity in the atrium and ventricle of the heart such as with QRS signals.

8. Quotation of the second paragraph of 35 U.S.C. 112 may be found in previous office action. Claim 41 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In this case, the term "crucial" in claim 40 is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The claim will be given the broadest interpretation in light of the specification (see MPEP 2111). Applicant has indicated (p. 4) that the term "crucial" does not appear in any of the claims under examination.

However,

*41. (previously presented) The method as in claim 39, wherein the real-time ECG waveform is an ongoing display where absence of data is readily ascertainable and not crucial to implantable medical device operation.*

**Citation of Pertinent Art:**

8. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Copies of documents cited will be provided as set forth in MPEP§ 707.05(a):

U.S. Patent No. 5,159,926

Ljungstroem teaches a programmer (36) in telemetry communication with an implantable device (1) (see col 5/lines 4-22).

U.S. Patent No. 5,931,791

Saltzstein et. al. teaches a system/method related to communication between a implantable medical device and a remote computer system (Figs. 1-2); teaching a device (12/14, col 2/lines 60-66) detecting (22, col 3/lines 51-60 and col 8/lines-col 9/line 8) the presence of vital signs and/or alarm condition in a monitored patient having an implanted medical device (col 3/lines 51-60), said communication device communicatively coupled to a cellular communication network system (col 10/lines 9-17, 48-61, col 7/lines 50-59) via a corresponding cellular telephone, said cellular communication network system capable of bi-directional communication to a remote computer system (18) (txt-rx: col 2/lines 66-col 3/line 3, via a cellular communication system, col 3/lines 23-37);

U.S. Patent No. 5,342,408;

DeCoriolis et. al. teaches telemetry signal strength or session success indicators; a telemetry system and method of monitoring cardiac activity or providing therapy to the heart for an implantable cardiac device, system includes a receiver and a transmitter in an external programmer and a receiver section and transmitter section in the cardiac device. The external programmer includes a signal strength indicating means for providing an indication of received signal strength, which the user can use to position the receiver, and transmitter in the external programmer for optimum received signal strength.

U.S. Patent No. 5,113,869;

Nappaholz et. al. teach an implantable medical monitoring device for accurately detecting any potential hazardous health condition and providing an alarm signal to a remote device based on two-way telemetry technology. The implant may also warn the external device of a malfunction within the implanted monitor in response to an attempt and failure of a self-diagnostic test.

U.S. Patent 5,815,426;

Jigour et. al. teaches a variety of add-on cards and modules for use in digital systems such PCs have enjoyed a measure of success in various memory-intensive applications, some of these memory add-on cards use flash memory, and are known as flash PC cards have become widely used for mass data storage applications, especially for personal data assistants (PDAs). Flash PC cards are more rugged and space efficient, are silent, consume less power, provide higher performance (in most cases), and provide a removable form-factor. As an alternative to battery-backed SRAM PC cards, flash PC cards typically offer higher-densities and lower cost per bit and are not as limited by reliability and temperature issues associated with batteries used in the battery-backed SRAM PC cards. PC cards that support the ATA interface use an on-card ATA controller, which allows "plug-and-play" compatibility between portable computers and PDAs. PC cards can be made available at extremely high memory capacities because of improved memory technology; however, such extremely high memory capacities are in excess of what is optimal for many mobile and portable applications. Moreover, although the insertion lifetime of 68-pin PC card connectors, which is about 10,000 cycles, is generally adequate for portable computers and PDAs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see <http://pair-direct.uspto.gov> or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:  
Commissioner of Patents and Trademarks  
P.O. Box 1450  
Alexandria, VA 22313-1450

or faxed to the Central Fax Office:

(703) 872-9306, for Official communications and entry;

Or Telephone:

(703) 306-5631 for TC 2100 Customer Service Office.

B. Prieto  
TC 2100  
Primary Examiner  
May 28, 2005

  
BEATRIZ PRIETO  
PRIMARY EXAMINER